PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Air Supported Conveyor

INDUSTRY: Coal-Fired Power

LOCATION: Colorado Springs Utilities, Martin Drake Plant
Colorado Springs, Colorado

The Martin® Air Supported Conveyor at Colorado Springs Utilities, Martin Drake Plant is 60 feet (18.3 m) in length.

To allow installation of a belt scale for blending accuracy, the Martin® Air Supported Conveyor ties into a conventional roller-supported conveyor outside the transfer structure.

PROBLEM

To alow the blending of economical PRB coal with other coal supplies, Colorado Springs Utilities needed to add a second coal stock pile, reclaim and feeding system and tie it into the existing coal handling system.

But the plant's location in downtown Colorado Springs added tough environmental standards to the design requirements.

SOLUTION

The engineering firm Roberts & Schaefer Company handled a design/supply contract for the overall project, consisting of a new pan feeder to transfer the PRB coal from the new stockpile to a new belt conveyor which in turn feeds the existing conveyor for transportation to the plant's crusher.

Given the Martin Drake Plant's environmental concerns, plant engineers looked for a conveying system that produced minimal dust. After carefully evaluating dust generation performance and comparing the costs against conventional (troughed idler) conveyors, the plant specified a fully enclosed **Martin® Air Supported Conveyor**.

RESULTS

Troughed at 35°, the 60-foot (18.3-m) **Martin® Air Supported Conveyor** carries coal at 120 tons per hour to the transfer house where it is loaded onto a conveyor for transportation to the crusher.

Plant officials are very satisfied with the operation of the air supported conveyor system. Its efficiency is allowing the integrationof PRB coal into the Martin Drake Plant's operation, improving its economics, and optimizing plant performance. Dust from the handling of PRB coal has been controlled, reducing the plant's environmental concerns.

Martin® Air Supported Conveyor is protected by U.S.Patent No. 6,966,430.

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